



iStand

Written By: Larry Cotton



TOOLS:

- [1/8" drill bit \(1\)](#)
- [Countersink bit \(1\)](#)
- [Disk sander \(1\)](#)
optional
- [Drill \(1\)](#)
- [Electric stove \(1\)](#)
- [Felt pen \(1\)](#)
- [High-speed rotary tool \(1\)](#)
- [Sandpaper \(1\)](#)
- [Saw \(1\)](#)
for wood and acrylic, ideally a band saw or jigsaw.
- [Wood scrap \(1\)](#)



PARTS:

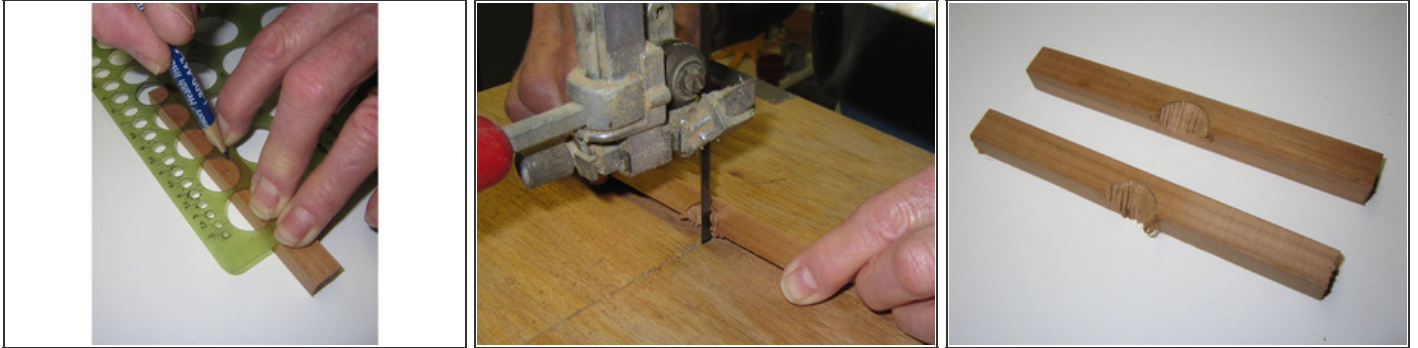
- [Acrylic sheet \(1\)](#)
aka plexiglass
- [Wood strips \(2\)](#)
- [Wood block \(1\)](#)
- [Self-adhesive foam sheet \(1\)](#)
- [Flat-head wood screws \(6\)](#)
- [Aluminium foil \(1\)](#)

SUMMARY

The iPad, wonderful as it is, often needs a stand to hold it. Sure, there are tons available, but they can be flimsy and/or expensive. Here's one that's cheap, sturdy, and easy to build. It'll hold either the original iPad or the iPad 2 in many useful positions.

It's made from 1/4"-thick clear or smoked acrylic, a few scraps of nice wood, a small piece of adhesive foam, and 6 screws.

Step 1 — Make the stand.



- Cut 2 wood strips 5"x1/2"x1/2". In the center of each, rough in a Home button access groove using a band saw or jigsaw.

Step 2



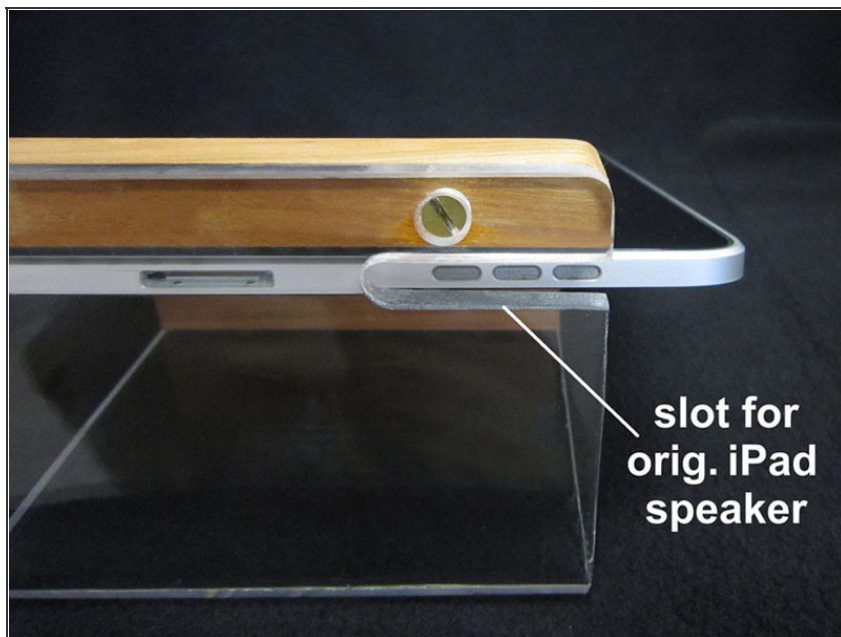
- Finish with a Dremel and sandpaper. Groove shape isn't critical, and may need to be tweaked later.

Step 3



- Leave the protective paper on the acrylic for now. Cut the acrylic to size and sand its edges.
- On one end only, drill and countersink 2 holes.


Step 4 — Add iPad speakers slot.



- For the original iPad, cut a slot on the same end to expose its down-firing speaker. Skip this step for iPad 2.
- Cut a 6" length of scrap 4×4 wood to use as a 90° bending fixture for the acrylic.
- On the same end of the acrylic as the screw holes, pull back and remove about 4" of the protective paper on both sides.

Step 5



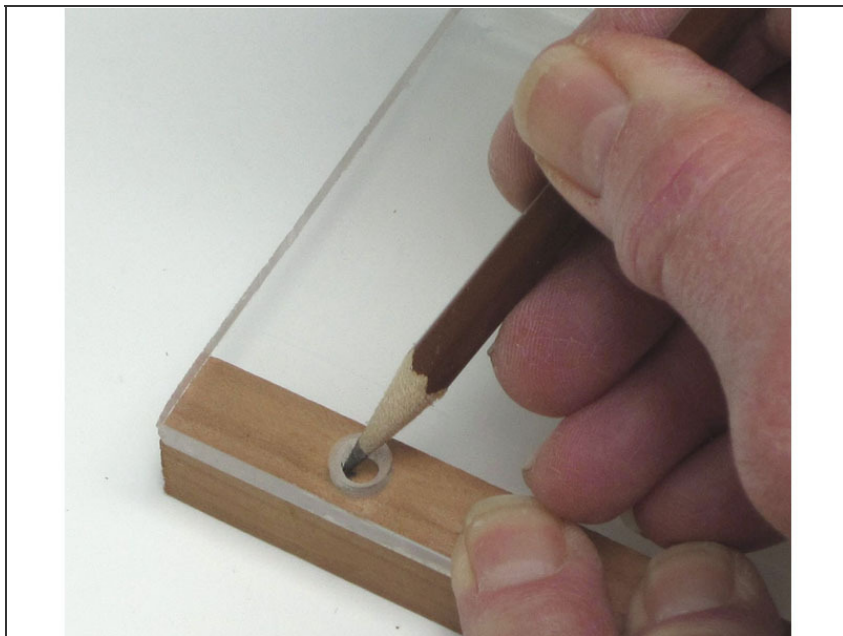
- Note which side of the acrylic the countersinks are on. Wrap both ends of the acrylic with aluminum foil. On the foil, mark a dot with a felt-tip pen on the countersinks' side. Leave exposed a 5/16"-wide bend area, as shown on the template. The foil will shield heat from everywhere except that area.
- To ensure an accurate, neat bend, use the straight  factory edges of the foil at the gap, ensuring that they're perpendicular to the sides and parallel.

Step 6



- Heat the bend area over a red-hot electric stove burner. Hold the acrylic 1–2" above the burner and flip it over frequently to ensure that both sides are heated evenly. Keep the piece moving, and don't allow the aluminum foil to slip.
- After about 30 seconds, push on the short end of the acrylic to see if it begins to yield. You want it to bend easily, but don't heat it so much that bubbles begin to form.
- When the bend area is pliable, remove from heat, then quickly (holding onto the cool foilwrapped ends) bend the acrylic over the 4×4 wood — with the felt-tip dot on the outside — and let it cool. Hold it under cold running water to speed the process.

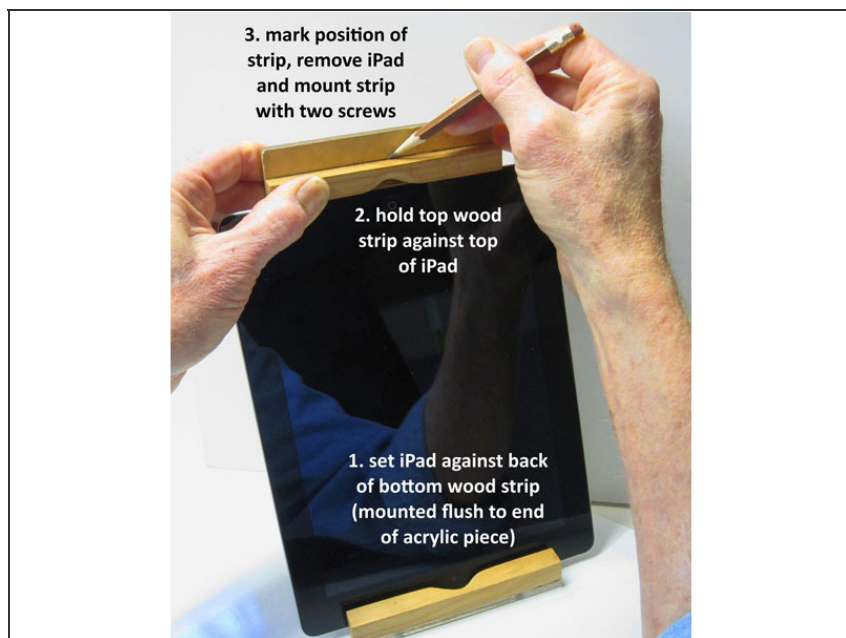
Step 7



- Noting the position of the Home button access groove, place one wood strip flush with the short end of the acrylic and over the 2 screw holes. Trace the holes onto the wood, then drill almost through with a 1/8" drill bit. Attach with 2 screws.
- The screws could raise a bulge in the wood if the countersinks are too deep. If so, you can either drill all the way through the wood strips and sand the ends of the screws flush, or sand a little off the ends before attaching the wood pieces to the acrylic. Don't use shorter screws.

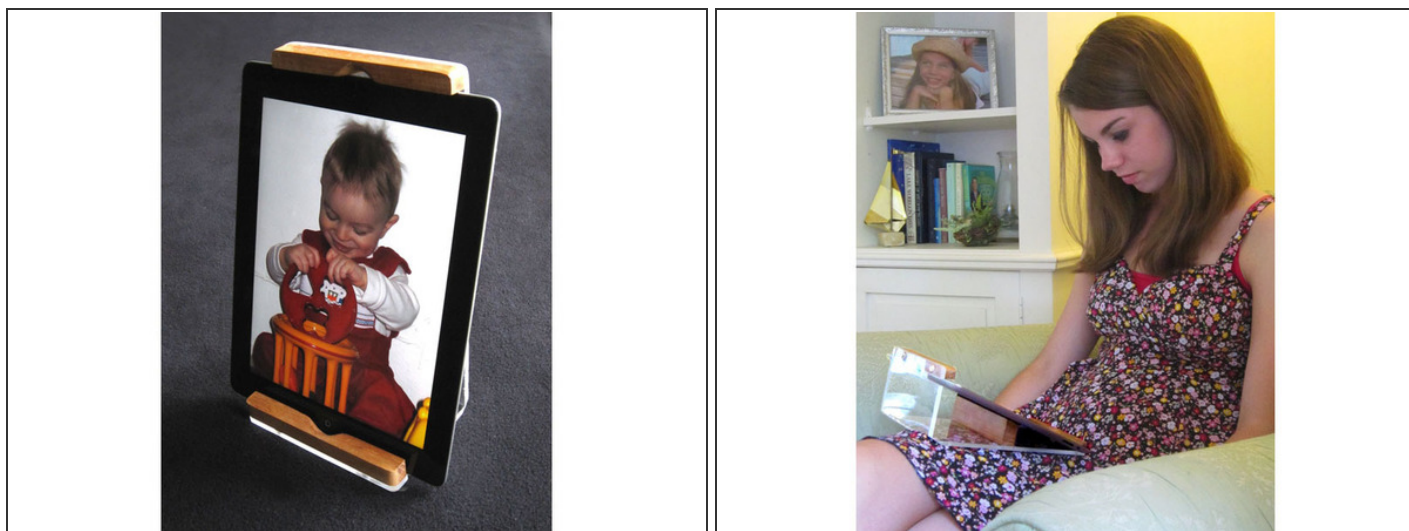


Step 8



- This step helps ensure the stand will accommodate both iPads. Set the stand on its short leg, and put your iPad in its portrait (steep-angle) position with its bottom edge trapped by the wood strip. Hold the other wood strip on top of the iPad, noting the relative position of the groove, and mark where it will be mounted.
- Attach the wood strip to the acrylic as you did the first one and trim the excess acrylic flush.
- Now gently round the 4 corners of your iStand; a bench disk sander works well.

Step 9

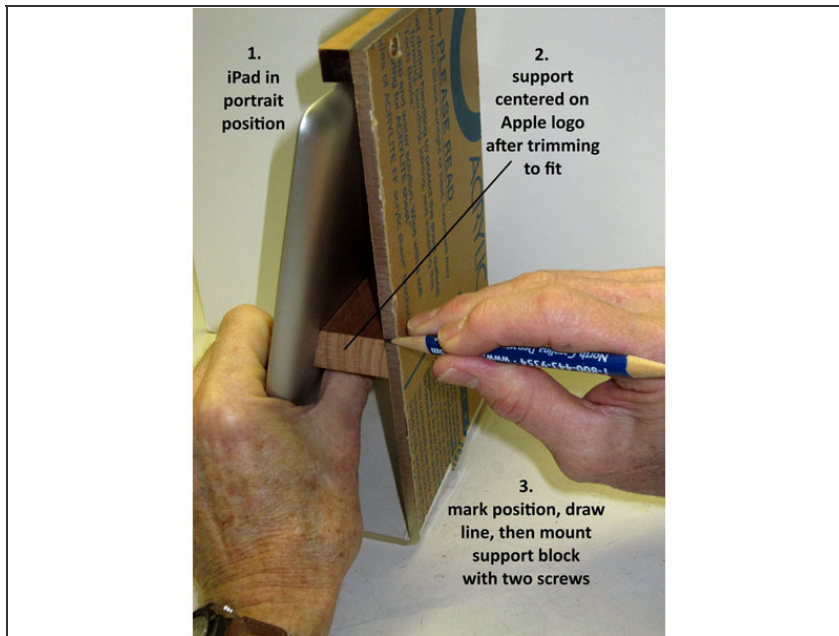


- Your iPad is now usable in portrait orientation, at either a steep or shallow angle.

Step 10 — Add a wooden support block.

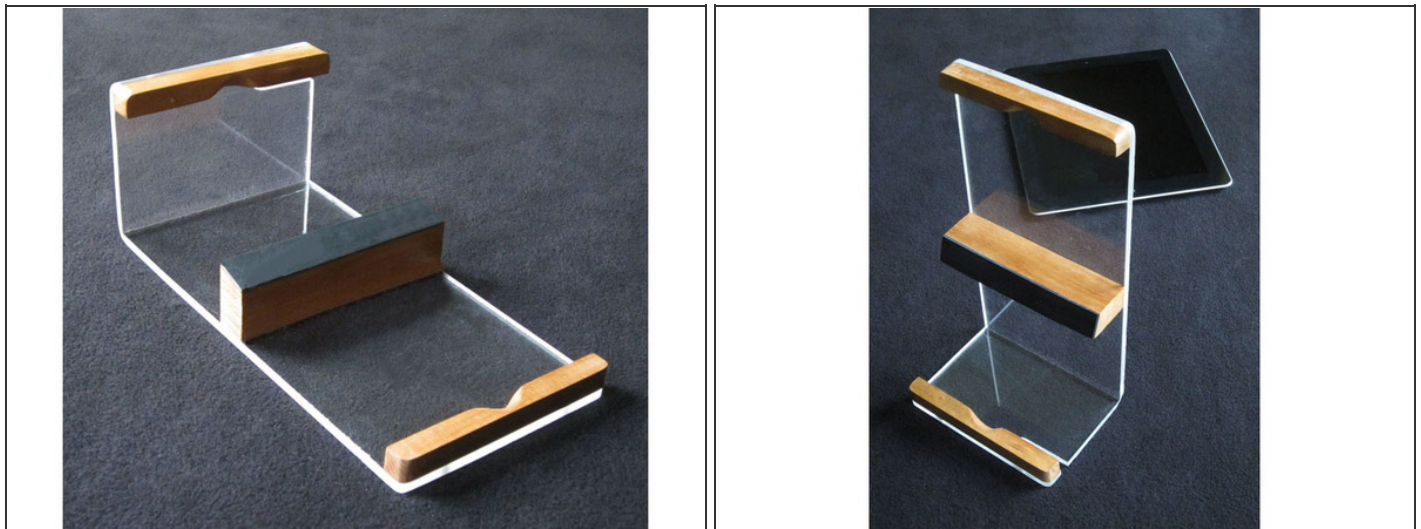
- To use your iPad in landscape and charging positions, add a wooden support block.
- Cut (preferably on a band saw) $\frac{3}{4}$ " wood stock to 5"×2", then cut an approximately 20° angle on one long edge.

Step 11



- Put your iPad in the stand in steep-angle portrait position, either slid in from the side or snapped behind the top wood strip. The acrylic will yield somewhat.
- Slide the support block into position with the angled surface against the back of the iPad and the other side against the back of the stand. Your goal is to center the support just above the center of the Apple logo. Trim it to fit.
- Attach a $\frac{3}{4}$ "x5" piece of thin pressuresensitive adhesive foam to the angled surface.
- Reposition the support block, and where its top edge meets the acrylic, mark a straight line on the acrylic, perpendicular to the edges. Remove the block.

Step 12



- At 3/8" below that line, mark, drill, and countersink 2 mounting holes in the acrylic.
- Once again, slide the support into position, trace the acrylic's mounting holes onto it, and drill two 1/8" holes, about 1/2" deep.
- Remove the wood strips and the acrylic's protective paper.
- Finish the 3 wood parts with oil, wax, or polyurethane varnish and reassemble the stand.

Step 13



- Your iPad is now usable in landscape orientation, at either a steep or shallow angle.

This project first appeared in [MAKE Volume 29](#).

